



Modem communication interface

Presentation

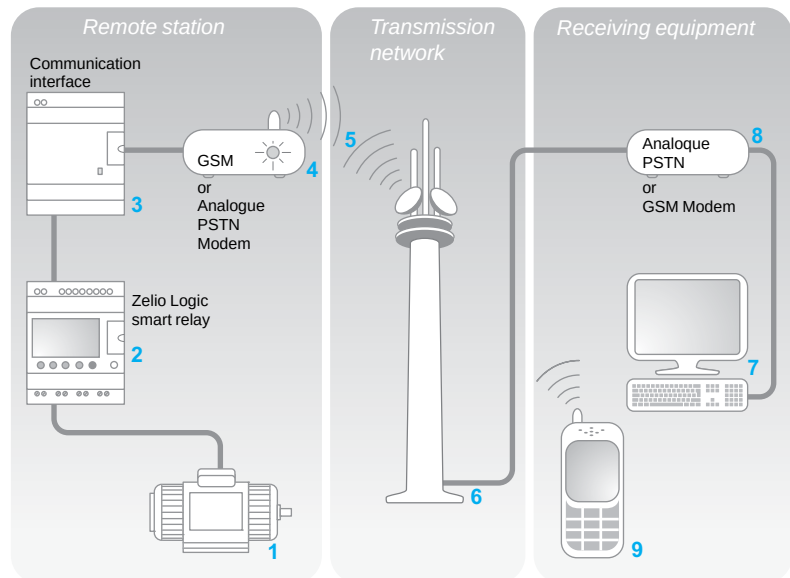
The communication products in the Zelio Logic range are primarily designed for monitoring or remote control of machines or installations which operate without personnel.

Examples:

- monitoring of lift pumps, livestock buildings (ventilation, feed level, etc.), refrigeration units, car-washes,
- alarm in the event of failure of industrial or domestic heating boilers,
- remote control of lighting: car parks, warehouses,
- remote control and monitoring of escalators in large stores, in the transport sector,
- refuse compactor full alert.

The communication range comprises:

- a communication interface connected between a smart relay and a Modem,
- GSM (1) or analogue (PSTN) (2) modems,
- "Zelio Logic Alarm" software.



The system comprises:

- a *Remote station*, machine or installation to be monitored **1**: control is achieved using a Zelio Logic smart relay with clock from the SR● B●●●● or SR2E●●●● **2** range, via its inputs and outputs. The smart relay is connected via a communication interface **3** to a GSM (1) type modem **4**, or, when a telephone line is available nearby, to an analogue PSTN modem (2),
- the GSM **5** or analogue PSTN **6** *Transmission network* provided by different telecommunication operators,
- a monitoring or control *Receiving device* which may be one of the following:
 - a PC **7** fitted with an analogue PSTN Modem **8** or a GSM modem,
 - or a GSM telephone **9**.

Note: the majority of Modems built into PCs can be used.

Various combinations are possible between the types of Modem used on the *Remote station* and the type of *Receiving device* (PC + Modems or GSM telephone). The type of architecture selected will therefore depend mainly on:

- whether or not an analogue telephone line is available,
- whether or not it is necessary to send SMS messages, see page 14104/5.

(1) Global System Mobile.

(2) Public Switched Telephone Network.

Presentation (continued)

Smart relay (*Remote station*)

- The smart relay, as on an independent machine or installation, is used for control (1). It contains the application program created using "Zelio Soft2" software. The smart relay may be selected from the various models in the Zelio Logic range:
 - according to supply voltages,
 - with 10, 12, 20 or 26 I/O (up to 40 I/O with discrete extension module),
 - with or without display,
 - with clock.

The firmware version of the smart relay is V3 or above.

Modem communication interface (*Remote station*)

The Modem communication interface allows messages, telephone numbers and calling conditions to be stored.

When the calling conditions are met, the messages, as well as any values to be sent, are date-stamped and stored in the interface.

The Modem communication interface scales analogue values to the physical values (degrees, bar, Pascal, etc.) required by the user.



GSM Modem



Analogue PSTN Modem

Modems

Either GSM or analogue PSTN type Modems can be used on both the *Remote Station* and PC type *Receiving devices* (when the PC is not fitted with an internal Modem).

GSM Modem

In order to exploit the capabilities associated with Modem communication, the Modem(s) are fitted with DATA type SIM cards. VOICE type SIM cards may be used but some functions will not be available. See table on page 14104/5.

"Zelio Logic Alarm" alarm management software (*PC type Receiving device*)

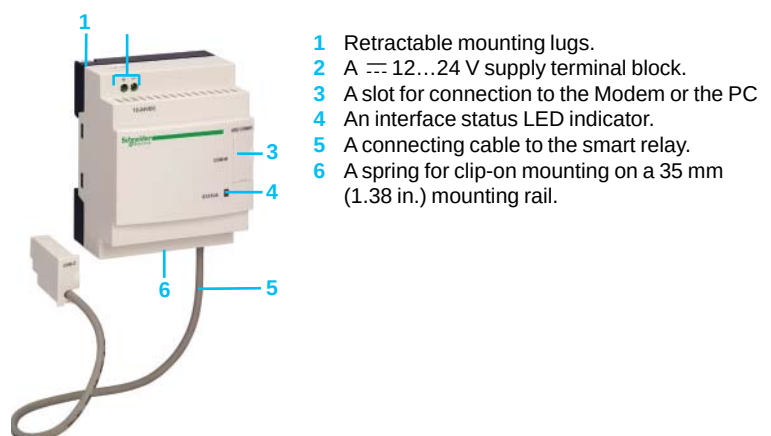
This software makes it possible to:

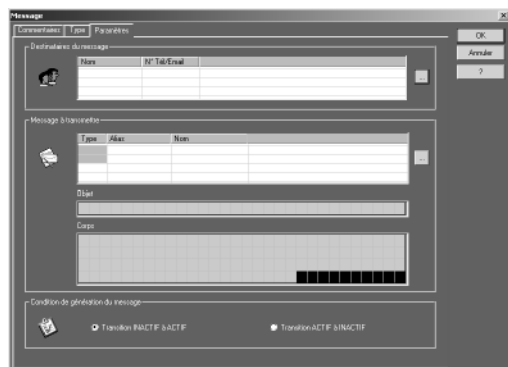
- receive, classify and export diagnosed alarm messages,
- read or remotely force the status of program elements (inputs, outputs, control relays, timing or counting values, etc.),
- send control instructions (RUN, STOP, setting the time of the smart relay, etc.),
- send specific instructions (modifying access rights, recipients, etc.).

(1) Zelio Logic - Smart relays, see page 14102/2.

Description

The Zelio Logic SR2COM01 communication interface comprises:





Message parameter entry window

Functions

Sending of alarms

This function makes it possible to send an alarm message to a *Receiving device*. When the calling condition is met, a message is sent to one or several telephone numbers or e-mail addresses.

Types of message:

- alarm message to a PC with Modem and "Zelio Logic Alarm" software,
- "SMS" message (1) to a GSM telephone,
- e-mail via SMS (1) (2).

One or all of the solutions can be selected simultaneously.

The *Remote station* to be monitored initiates the call.

The telephone line is only used while the alarm message is being transmitted.

Up to 28 messages can be used.

These messages consist of:

- a 160 character text, which may contain a discrete and/or analogue value (counting values, analogue input voltages that can be scaled, etc.).
- 1 to 10 recipient telephone numbers/e-mail addresses.

Receipt of instruction

This function allows the status or the value of a program element to be modified from the *Receiving device*.

The operator initiates the call using the *Receiving device* (PC or GSM telephone). It is then possible to force the status of the discrete and/or analogue value of each of the 28 messages.

Remote dialogue using "Zelio Soft 2"

This function enables use of the Transfer, Monitoring and Diagnostics modes available in "Zelio Soft 2" via the *Transmission network* instead of the physical link (cable SR2USB01 or SR2CBL01) between the product (*Remote station*) and the PC (*Receiving device*).

It is then possible to:

- transfer a program created on a PC station to the *Remote station*,
- transfer a program installed on the *Remote station* to the PC station,
- modify, from the PC, the receiving device telephone numbers/e-mail addresses, and the alarm sending conditions,
- update the firmware in the smart relay and in the Modem communication interface,
- display and modify discrete and analogue values,
- perform diagnostics on the smart relay and on the Modem communication interface.

(1) Requires the use of a GSM Modem on the Remote station side.

(2) Verify with the Transmission network operator that the e-mail by SMS service is available.

Functions available depending on the hardware architecture and/or type of SIM card

Function	Remote station device				
	Analogue PSTN Modem	GSM Modem			
		Type of SIM card			
		DATA	DATA VOICE	VOICE	
			DATA N°	VOICE N°	
Send alarm/receive instruction with GSM telephone					
Send alarm/receive instruction with PC running "Zelio Logic Alarm" software (1)					
Transfer program					
Update firmware Monitoring (1)					
Send alarm to e-mail address					

Functions available
Functions not available

Note: Instructions cannot be transmitted by e-mail.

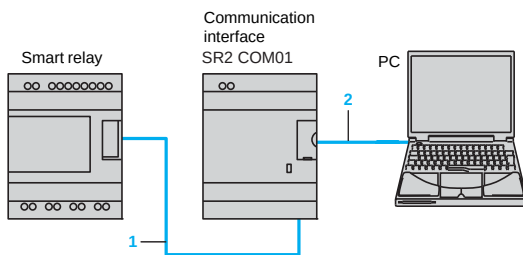
(1) When using a GSM Modem on the PC side, the SIM card is identified with DATA number.

Installation set-up

Setting-up of the installation or the machine to be monitored involves 2 steps:

Connection for programming the smart relay and the interface

- 1 Interface cable marked COM-Z.
- 2 Cable SR2USB01 or SR2CBL01.



After having powered-up the smart relay and the interface, the application program can be transferred in order to simultaneously:

- load the automation system program into the smart relay,
- load the alarm conditions, messages and telephone numbers/e-mail addresses into the interface.

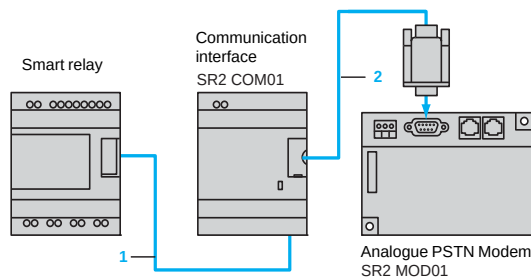
This operation can also be carried out remotely using "Transfer" mode, after having made the operating connections described below.

⚠ Program loading using memory cartridges SR2MEM01 or SR2MEM02 is incompatible with Modem communication interface SR2COM01.

Operating connections

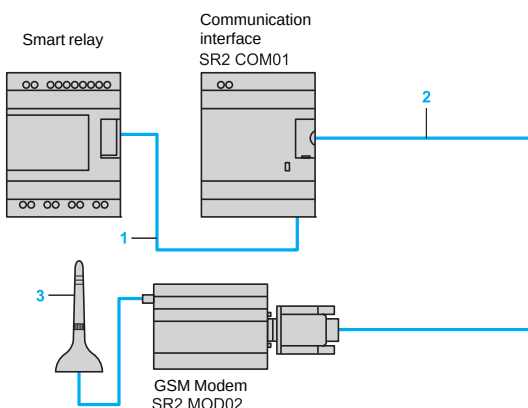
PSTN analogue modem

- 1 Interface cable marked COM-Z.
- 2 Cable SR2CBL07 included with the interface.



GSM Modem

- 1 Interface cable marked COM-Z.
- 2 Cable SR2CBL07 included with the interface.
- 3 Antenna and cable included with the Modem.





SR2COM01



SR2MOD01



SR2MOD02

Modem communication interface				
Description	For use with	Supply	Reference	Weight kg lb
Modem communication interface (including cable SR2CBL07)	SR● B●●●●● SR2E●●●●●	≐ 12...24 V	SR2COM01 (1)	0.200 0.441

Modems				
Description		Supply voltage	Reference	Weight kg lb
Analogue PSTN Modem Type SIXNET VT-MODEM-5-VW, including a telephone cable (length 2 m/ 6,562 ft). Tested with SR2COM01 (for additional information, please contact SIXNET company)		≐ 12...24 V	SR2MOD01	0.265 0.584

GSM Modem Type quad band 900/1800 MHz, 850/1900 MHz including: ■ a supply cable (length 1.5 m/4,921 ft), ■ an antenna with cable (length 2.5 m/8,202 ft) ■ mounting on L rail (assembled with the GSM Modem) ■ two lugs for plate mounting		≐ 12...24 V	SR2MOD02 (2)	0.335 0.739
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(1) Can only be used with "Zelio Soft 2" software version ≥ 3.1.
(2) Not recommended for Japan.

Zelio Logic - Smart relays

Modem communication interface



SR2CBL07

Software				
Description	Application Compatibility	Medium	Reference	Weight kg lb
Zelio Logic Alarm	PC Windows 98, NT4, 2000 and XP	CD-ROM	SR2SFT02	0.200 0.441

Connection accessories				
Description	Composition/ Application	Length m/ft	Reference	Weight kg lb
Connection cables	SUB-D9/SUB-D9 connectors Between Modem and PC	1.8/5.906	SR1 CBL03	0.110 0.243
	Specific Zelio/ SUB-D9 connector Between communication interface and modem	0.5/1.640	SR2CBL07 (1)	0.050 0.110

(1) Spare part (cable included with communication interface SR2COM01).